7717/6CY5

Sharp-Cutoff Tetrode

7-PIN MINIATURE TYPE

For Mobile-Communications Equipment

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Design-Maximum Values):*

Voltage (AC or DC)	$6.3^{+1.2}_{-0.3}$		volts
Current at heater volts = 6.3	0.200		amp
Peak heater-cathode voltage:			
Heater negative with respect to cathode	100	max.	volts
Heater positive with respect to cathode	100[a]	max.	volts
Direct Interelectrode Capacitances:[b]			
Grid No.1 to plate	0.03	max.	μμf
Grid No.1 to cathode & internal shield, grid No.2, and heater	4.4		μμf
Plate to cathode & internal shield, grid No.2, and heater	2.74		μμf

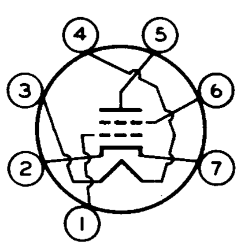
Characteristics, Class A_1 Amplifier:

Plate Voltage	125	volts
Grid-No.2 Voltage	80	volts
Grid-No.1 Voltage	-1	volt
Plate Resistance (Approx.)	0.125	megohm
Transconductance	8000	μmhos
Plate Current	10	ma
Grid-No.2 Current	1.4	ma
Grid-No.1 Voltage (Approx.) for transconductance (μmhos) = 100	-5	volts

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip)	1-1/2" ± 3/32"
Diameter	0.650" to 0.750"
Dimensional Outline	See *General Section*
Bulb	T5-1/2
Base	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW	7EW

Pin 1 - Grid No.1
Pin 2 - Cathode, Internal Shield
Pin 3 - Heater
Pin 4 - Heater



Pin 5 - Plate
Pin 6 - Grid No.2
Pin 7 - Cathode, Internal Shield

AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE	180	max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	180	max.	volts
GRID-No.2 VOLTAGE	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section		
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Positive-bias value	0	max.	volts
CATHODE CURRENT	20	max.	ma
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 90 volts	0.5	max.	watt
For grid-No.2 voltages between 90 and 180 volts	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section		
PLATE DISSIPATION	2	max.	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	0.5	max.	megohm

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling:

Cycles of Intermittent Operation	2000	min.	cycles

This test is performed on a sample lot of tubes from each production run under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage:

Average Value	5900	μmhos

With heater volts = 5.0, plate volts = 125, grid-No.2 volts = 80, grid-No.1 volts = -1.

[a] The dc component must not exceed 50 volts.
[b] With external shield JEDEC No.316 connected to cathode.